# 8.3 Cultural Resources

## 8.3.1 Introduction

This section determines whether cultural resources are present and could be affected adversely by the construction and operation of the South Bay Replacement Project (SBRP) or the demolition of the existing South Bay Power Plant (SBPP). The significance of any potentially affected resources is assessed, and measures are proposed to mitigate potential adverse project effects. This study was conducted by Clint Helton, M.A., RPA, a Cultural Resource Specialist who meets the qualifications for Principal Investigator stated in the Secretary of the Interior's standards and guidelines for archaeology and historic preservation (USNPS, 1983).

The SBRP Project consists of three phases:

- **The Construction Phase**—The first phase is the demolition of existing structures and foundations associated with the former Liquefied Natural Gas (LNG) Facility, preparation of construction lay down areas, and the construction of the SBRP. Initial operations of SBRP will include an interim interconnection to the San Diego Gas & Electric Company (SDG&E) transmission system through a new 230-kilovolt ampere (kVA) substation on approximately 0.6 acre (interconnecting to SDG&E's planned new 230-kilovolt (kV) transmission line) and an underground interconnection to the existing SDG&E South Bay 138/69 kV substation.[1]

- **The Demolition Phase**—The second phase of Project construction activities will occur after the SBRP achieves commercial operation. The construction activity during this phase will be the demolition of the existing SBPP facilities, excluding SDG&E's existing South Bay Substation, which will remain in service until the new substation is constructed.

- **The New Substation Phase**—The final phase of the Project will involve the construction of the SDG&E substation on approximately 6.5 acres south of and adjacent to the SBRP site. This construction will be performed after the start up of the SBRP and demolition of SBPP. After the new SDG&E substation construction is completed and operational, and the SBRP generator leads are attached to the new facilities, SDG&E could then initiate demolition activities on the South Bay Substation, located north of the SBRP Project site. These demolition activities, however, are not part of the scope of this Application for Certification (AFC). They are part of a separate project of unknown timing and scope.

The reason there are two interconnect steps is to ensure that interconnection can be secured by the proposed on-line date of SBRP (2010). Also, SDG&E holds certain obligations associated with a new substation as part of its Memorandum of Understanding with the City of Chula Vista, but these obligations occur after the demolition of SBPP.

[1] SDG&E was granted a Certificate of Public Convenience and Necessity (CPCN) for the Otay Mesa Power Purchase Agreement (OMPPA) Transmission Project. The CPCN is for the construction of two new 230- kV electric transmission circuits to connect SDG&E's Miguel Substation with both the Sycamore Canyon Substation and the Old Town Substation in San Diego County. The circuit to the Old Town Substation is planned to pass within approximately 100 feet of the proposed SBRP. This project is under construction. The SBRP interconnection plan is based in part on interconnecting to this circuit.

This section is consistent with state regulatory requirements for cultural resources pursuant to the California Environmental Quality Act (CEQA). The study scope was developed in consultation with the California Energy Commission's cultural resources staff and complies with *Instructions to the California Energy Commission Staff for the Review of and Information Requirements for an Application for Certification* (CEC, 1992) and *Rules of Practice and Procedure & Power Plant Site Certification Regulations* (CEC, 1997).

Cultural resources include prehistoric and historic archaeological sites;[2] districts and objects; standing historic structures, buildings, districts, and objects; and locations of important historic events, or sites of traditional/cultural importance to various groups.[3]

Subsection 8.3.2 discusses the laws, ordinances, regulations, and standards (LORS) applicable to the protection of cultural resources. Subsection 8.3.3 describes the cultural resources environment that might be affected by the SBRP. Subsection 8.3.4 discusses the environmental impacts of construction of the proposed development. Subsection 8.3.5 determines whether there are any cumulative effects from the Project, and Subsection 8.3.6 presents mitigation measures that will be implemented to avoid construction impacts. Subsection 8.3.7 lists the agencies involved and agency contacts, and Subsection 8.3.8 discusses permits and the permitting schedule. Subsection 8.3.9 lists reference materials used in preparing this section.

Appendix 8.3A provides copies of agency consultation letters. Appendix 8.3B provides the resume for Clint Helton. Appendix 8.3C provides a technical memorandum *"Architectural Documentation and Evaluation of the South Bay Power Plant, Chula Vista, California"* and a completed DPR523 form for the South Bay Power Plant. Figure 8.3-1 depicts the ethnographic distribution in the project area per CEC Data Adequacy requirements.

The SBRP project is subject to CEC and CEQA regulatory requirements. The project does not require review under federal regulations such as the National Environmental Policy Act (NEPA) and the Archaeological and Historic Preservation Act (AHPA) of 1974 (16 USC 469), among others, because it is not a federal undertaking (federally permitted or funded).

2 Site: "The location of a significant event, a prehistoric or historic occupation or activity, or a building or structure…where the location itself possesses historic, cultural, or archeological value." (USNPS-IRD 1991:15).

3 The federal definitions of cultural resource, historic property or historic resource, traditional use area, and sacred resources are reviewed below and are typically applied to non-federal projects.

A cultural resource may be defined as a phenomenon associated with prehistory, historical events or individuals or extant cultural systems. These include archaeological sites, districts, and objects; standing historic structures, districts, and objects; locations of important historic events; and places, objects and living or non-living things that are important to the practice and continuity of traditional cultures. Cultural resources may involve historic properties, traditional use areas, and sacred resource areas.

Historic property or historic resource means any prehistoric district, site building, structure, or object included in, or eligible for, inclusion in the National Register of Historic Places (NRHP). The definition also includes artifacts, records and remains that are related to such a district, site, building, structure, or object.

Traditional use area refers to an area or landscape identified by a cultural group to be necessary for the perpetuation of the traditional culture. The concept can include areas for the collection of food and non-food resources, occupation sites, and ceremonial and/or sacred areas.

Sacred resources applies to traditional sites, places, or objects that Native American tribes or groups, or their members, perceive as having religious significance.

## 8.3.2 Laws, Ordinances, Regulations, and Standards

Among the local LORS discussed in this section are certain ordinances, plans or policies of the City of Chula Vista. For informational purposes, this section reviews compliance of the Project with such requirements even though the Applicant understands that they are not applicable to the Project as a matter of law. (*See* Section 8.4 — Land Use for a discussion of this issue.) The analysis of City LORS in this section is informational and does not address the jurisdictional issues which are discussed in Section 8.4 — Land Use.

A summary of LORS is provided in Table 8.3-1.

**TABLE 8.3-1**
Applicable Cultural Resource Laws, Ordinances, Regulations, and Standards

| Law, Ordinance, Regulation, or Standard | Applicability | Project Conformity? |
|---|---|---|
| California Environment Quality Act Guidelines | Project construction may encounter archaeological and/or historical resources | Yes |
| Health and Safety Code Section 7050.5 | Construction may encounter Native American graves; coroner calls the Native American Heritage Commission (NAHC) | Yes |
| Public Resources Code Section 5097.98 | Construction may encounter Native American graves; NAHC assigns Most Likely Descendant | Yes |
| Public Resources Code Section 5097.5/5097.9 | Would apply only if some project land were acquired by the state (currently no state land) | Yes |
| City and County of San Diego | Resources Protection Ordinance No. 7631. | Yes |
| City of Chula Vista | *City of Chula Vista Archaeological/Historical Guidelines* | Yes |

### 8.3.2.1 State of California Statutes

CEQA requires a review to determine if a project will have a significant effect on archaeological sites or a property of historic or cultural significance to a community or ethnic group eligible for inclusion in the California Register of Historical Resources (CRHR) (CEQA Guidelines). CEQA equates a substantial adverse change in the significance of a historical resource with a significant effect on the environment (Section 21084.1 of the Public Resources Code) and defines substantial adverse change as demolition, destruction, relocation, or alteration that would impair historical significance (Section 5020.1). Section 21084.1 stipulates that any resource listed in, or eligible for listing in, the CRHR[4] is presumed to be historically or culturally significant.[5]

4 The CRHR is a listing of "…those properties which are to be protected from substantial adverse change." Any resource eligible for listing in the California Register is also to be considered under CEQA.

5 A historical resource may be listed in the CRHR if it meets one or more of the following criteria: "(1) is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; (2) is associated with the lives of persons important to local, California or national history; (3) embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master or possesses high artistic values; or (4) has yielded or has the potential to yield information important in prehistory or history (…of the local area, California or the nation)" (Public Resources Code §5024.1, Title 14 CCR, Section 4852). Automatic CRHR listings include NRHP listed and determined eligible historic properties (either by the Keeper of the NRHP or through a consensus determination on a project review); State Historical Landmarks from number 770 onward; and Points of Historical Interest nominated

Resources listed in a local historic register or deemed significant in a historical resource survey (as provided under Section 5024.1g) are presumed historically or culturally significant unless the preponderance of evidence demonstrates they are not.

A resource that is not listed in or determined to be eligible for listing in the CRHR, is not included in a local register of historic resources, nor deemed significant in a historical resource survey, may nonetheless be historically significant (Section 21084.1; see Section 21098.1).

CEQA requires a Lead Agency to identify and examine environmental effects that may result in significant adverse effects. Where a project may adversely affect a unique archaeological resource,[6] Section 21083.2 requires the Lead Agency to treat that effect as a significant environmental effect and prepare an Environmental Impact Review (EIR). When an archaeological resource is listed in or is eligible to be listed in the CRHR, Section 21084.1 requires that any substantial adverse effect to that resource be considered a significant environmental effect. Sections 21083.2 and 21084.1 operate independently to ensure that potential effects on archaeological resources are considered as part of a project's environmental analysis. Either of these benchmarks may indicate that a project may have a potential adverse effect on archaeological resources.

Other state-level requirements for cultural resources management appear in the California Public Resources Code Chapter 1.7, Section 5097.5 (Archaeological, Paleontological, and Historical Sites), and Chapter 1.75, beginning at Section 5097.9 (Native American Historical, Cultural, and Sacred Sites) for lands owned by the state or a state agency.

The disposition of Native American burials is governed by Section 7050.5 of the California Health and Safety Code and Sections 5097.94 and 5097.98 of the Public Resources Code, and falls within the jurisdiction of the NAHC.

If human remains are discovered, the San Diego County Coroner must be notified within 48 hours and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the Coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to Section 5097.98, will immediately notify those persons it believes to be most likely descended from the deceased Native American so they can inspect the burial site and make recommendations for treatment or disposal.

### 8.3.2.2 Local Policies

As discussed above, among the local LORS discussed in this section are certain ordinances, plans or policies of the City of Chula Vista. For informational purposes, this section reviews compliance of the Project with such requirements even though the Applicant understands that they are not applicable to the Project as a matter of law. (*See* Section 8.4 — Land Use, for

from January 1998 onward. Landmarks prior to 770 and Points of Historical Interest may be listed through an action of the State Historical Resources Commission.

6 Public Resources Code 21083.2 (g) defines a unique archaeological resource to be: An archaeological artifact, object, or site, about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria: (1) contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information; (2) has a special and particular quality such as being the oldest of its type or the best available example of its type; or (3) is directly associated with a scientifically recognized important prehistoric or historic event or person.

a discussion of this issue.) The analysis of City LORS in this section is informational and does not address the jurisdictional issues which are discussed in Section 8.4 — Land Use.

#### 8.3.2.2.1 San Diego County

The following San Diego County ordinances may apply:

*San Diego County Administrative Code, Section 396.7* establishes the San Diego County Local Register of Historical Resources; defines eligible properties, sets forth criteria to determine significance, and lists nomination procedures.

The *Resources Protection Ordinance No. 7631* requires a resource protection study to protect "environmentally sensitive lands" including significant prehistoric and historic sites. The ordinance defines significant cultural resources and prohibits damaging such resources. The ordinance also provides exemptions for essential public facilities, which are defined as "any structure or improvement necessary for the provision of public services, which must be located in the particular location to serve its purpose and for which no less environmentally damaging location, alignment, or non-structural alternative exists."

#### 8.3.2.2.2 City of Chula Vista

The City of Chula Vista's General Plan which describes preservation of cultural resources may apply:

*Municipal Code Title 2 Chapter 2.32 Section 2.32.030* protects finite cultural resources which provide the only record of our historic, prehistoric and natural past.

## 8.3.3 Affected Environment

In southern California, cultural resources extend back in time for at least 11,500 years. Written historical sources tell the story of the past 200 years. Archaeologists have reconstructed general trends of prehistory.

### 8.3.3.1 Regional Setting

The proposed SBRP is located on a portion of a 33-acre site known as the former LNG site located on San Diego Unified Port District (Port) property within the City of Chula Vista, California. The SBRP will be located on 12.9 acres on land leased from the Port, just south of the existing SBRP. The Project also includes a 6.5-acre substation facility. The Project site and linear facilities are located along the southeastern shore of the San Diego Bay within the Peninsular Ranges physiographic province of California. The proposed facility site is relatively flat (approximate elevation 12 feet above mean sea level) and is underlain by artificial fill, alluvium, and terrace deposits.

### 8.3.3.2 Prehistoric Period

The general trend throughout California prehistory has been an increase in population density over time, coupled with greater sedentism and the use of a greater diversity of food resources. There is abundant evidence that humans were present in the New World for at least the past 11,500 years. There is also fragmentary, but growing, evidence that humans were present long before that date. Linguistic and genetic studies suggest that a date of 20,000 to 40,000 years ago for the human colonization of the New World may be correct. The evidence of this earlier occupation is not yet conclusive, but it is beginning to be accepted by archaeologists. The

Meadowcroft Rockshelter in Pennsylvania and Monte Verde in Chile, for instance, are two early sites that have produced apparently reliable dates as early as 12,500 years before present. These earliest known remains indicate very small, mobile populations, apparently dependent on hunting of large game animals as the primary subsistence strategy.

The first useful chronology for southern California in general was developed by William Wallace (1955), who described four distinct periods applicable to the southern California coastal region. Although dated, the chronology's relative accuracy has been vindicated by more recent radiocarbon dates, and archaeologists still find it applicable.

Wallace's earliest period is called Horizon I: Early Man, and dates from the end of the Pleistocene (approximately 12,000 years ago) to about 7,500 years ago. The surviving material culture of this period consists primarily of large, well-made projectile points as well as large, but crude, stone tools such as scrapers and choppers. Many encampments during this period were not permanent, and were sited near the kills of Pleistocene megafauna (mastodon, mammoth, giant bison). Such an economy, using only a small fraction of the available resources, did not support large populations, and early groups were generally no larger than extended families. As the Pleistocene ended and the megafauna suddenly became extinct, prehistoric people during this period were forced to broaden their resource extraction base.

The succeeding period identified by Wallace, Horizon II: Millingstone Assemblages (7,500 to 5,000 years ago), gets its name from the sudden appearance in the archaeological record of stone milling tools, such as the mano (handstone) and slab and basin metate (flat grinding stone). These tools were used to process the small, hard seeds associated with the sage scrub ecological community. Settlement size seems to have increased, compared with the previous period. An annual round of seasonal migrations was likely practiced as movements coincided with ripening vegetal resources and rotated among hunting and gathering grounds to avoid over-exploitation of resources in a given area.

The Millingstone Period is followed, in Wallace's scheme, by Horizon III: Intermediate Cultures (5,000 to 1,000 years ago). The major change marking this new period was the introduction of the mortar and pestle. This tool is an indicator of the intensification of acorn food production. Although the acorn had been present and was no doubt used as a food source earlier than this, the need for labor-intensive processing of this food (grinding and leaching) may have discouraged people from extensive use until increasing population densities made it necessary to extract more food from a given group's territory. Flaked stone tools also became more diverse and plentiful during this period. Along with population growth came the increasing diversification of food resources. Late in this period, the bow and arrow were introduced, as indicated by the greater number of small, finely flaked projectile points. This technology spread across North America about 1,500 years ago from an unknown origin point. It allowed for more accurate, if less powerful, propulsion of projectiles than the previous spear thrower (atl-atl) and dart technology and was thus more useful for shooting smaller game.

Wallace's final phase is called Horizon IV: Late Prehistoric Cultures. In the Late Prehistoric (1,000 to 200 years ago), groups increasingly developed extensive trade networks to bring exotic goods over long distances (shell for ornaments and currency from the Pacific Ocean, obsidian for tool-making from distant sources). The pattern of life in Horizon IV was more complex than during earlier periods. More classes of artifacts were being produced and they

exhibited a more sophisticated degree of workmanship. Other items include steatite containers, shell fishhooks, perforated stones, bone tools, personal ornaments, asphalt adhesive, and elaborate mortuary customs. In addition, the population increased and larger, more permanent villages evolved (Wallace, 1955).

#### 8.3.3.3 Ethnographic Setting

The Project area and much of southern San Diego County was occupied ethnographically by the Kumeyaay (Kroeber 1925). The Kumeyaay were hunters/gatherers, relying on seasonally available animals for subsistence and local resources supplemented by the fruits of trade for all their needs. Each Kumeyaay band was adapted to the ecological region of its home territory. In the coast region, this pattern is expressed in a heavy reliance upon shellfish augmented by acorns.

On the basis of archaeological evidence, Hector (1984) proposes that settlement patterns during the Late prehistoric period focused throughout the area upon the occupation of base camps, supported by nearby special-use camps. The base camp was in an optimum location for everyday living. The site included water, a hospitable sheltered environment, and proximity of necessities, such as food mainstays and stone tool raw materials, outlying special-use support camps were located close to a particular resource, and the location might not have related to any other habitation requirement. For instance, acorn grinding areas were close to bedrock and oaks. Shell harvesting took place immediately adjacent to the lagoon or open seacoast. It also appears that some resources were completely processed at the special-use camps and others were brought back to the base camp (Wade and Hector 1986).

Occupation patterns in this interpretation are seen as flexible, with functional variations sometimes occurring over time: a site might thus serve as a base camp during one period and as a temporary camp during another. Bands followed a seasonal round, moving up and downslope as resources became seasonally available. The pre-contact cultural patterns of the coastal bands of the Kumeyaay are not well known. The coastal groups were the earliest to be affected by "missionization".

The ethnographic description which follows is drawn from that of Katherine Luomala (1978).

Each Kumeyaay band was autonomous and had its own chief. A communal territory was claimed by each band, but there was some sharing of resources and even occasional co-occupation of villages by several bands. Structures varied according to locality and need from a simple windbreak in summer, to more substantial dwellings at base camps or in winter. A dwelling might be round or rectangular, with a slightly sunken floor covered by a dome or gable set on the ground. A pole framework was thatched and covered with grass and earth.

Individuals and families did not accumulate much material wealth and material culture was not much elaborated. The deceased was cremated with all his possessions, and tangibIe goods were not usually inherited.

Coastal Kumeyaay supplemented local resources through the trade of salt, dried seafood, greens, and abalone shell (for ornaments) to eastern groups in exchange for acorns, agave, mesquite beans, and gourds. There was probably considerable contact with groups with influences being seen, for example, in the use of pots as well as baskets.

The entry of Spanish missionaries into the coastal region. in 1769 in large part brought about the end of the natives' way of life there. Bands were not missionized wholesale, as the missions could not support large numbers of people. Individuals were captured, sometimes converted, educated to Spanish ways, and released. After the secularization of the missions in 1821, the Indians were essentially abandoned.

Some of those who had survived the disease and violence of early missionization returned to their former ways of life, which became increasingly difficult to pursue because the lands from which the Kumeymy had derived subsistence were granted to immigrants from Mexico. Most Indians gradually moved away from the coast. Many of the marshes and tideflats important to Kumeyaay who had lived on the margins of San Diego Bay were filled and were used for waterfront business construction.

### 8.3.3.4 Historic Setting

Commencement of the Historic period for San Diego County is generally accepted as 1769. Although there was contact with Spanish explorers as early as 1542, it was not until 1769 that colonial forces occupied this territory and claimed it for Spain. This action brought about the beginning of the Spanish period and saw the gradual acculturation of all aboriginal peoples in this area.

Through the development of a series of missions and presidios, Spain laid claim to virtually all of California. The first of the Alta California missions was founded on July 16, 1769, on a hill overlooking the San Diego Bay. This mission later moved east, into present-day Mission Valley, to the site of a large Kumeyaay village known as Nipaguay. The Presidio remained at the original location, above the area, which would later be known as Old Town.

The Spanish period spans the years from 1769 to 1822 with the Presidio and Mission San Diego de Alcala, the Mission San Luis Rey, Padre Dam and Flume, and several poorly preserved adobe structures within the county representing this period. It is known that a number of family ranchos were established during this period; however, little remains of these early settlements. It is also possible that elements of Spanish period sites and structures were incorporated into later building efforts.

The Mexican period (1822–1848) follows the Spanish period with Mexican independence from Spain. One of the early changes was the granting of land to private citizens and the secularization of vast Mission holdings. The Union Title Company shows 30 ranchos between Oceanside and Otay and the Pacific Ocean and the Laguna Mountains. Generally, these ranchos constituted vast land holdings over which cattle and sheep were grazed. The practice of utilizing natural valleys and slopes as open range for live stock is a typical practice for this region, well into the American period. Political responsibility for the region was transferred to the United States with the signing of the Treaty of Guadalupe Hidalgo on February 2, 1848. However, the economic and demographic makeup of the San Diego area remained almost unchanged until years after California became a state on September 9, 1850.

During the American period, in addition to cattle and sheep ranches, a growing number of farms appeared. A rural community cultural pattern existed in the study area from approximately 1870 to 1930. This pattern consisted of communities made up of population aggregates who lived within well-defined geographic boundaries, shared common bonds, and cooperated to solve shared problems. They lived on farmsteads, tied together by a

common school district, church, post office, and country store. These farmsteads and dispersed farming communities gave way to horse ranches, dairies, and nurseries, which in turn were replaced by the establishment of the roadside service complex. The roadside service industry thrived in the highly mobile, mechanized pre- and post-war society, which was linked by state and federal roadways.

The area later to be developed as Chula Vista, immediately east of the Project was used during the mission and Mexican periods as grazing land for cattle and horses belonging to the mission, and later as private ranches. There was little development of these lands until, 1886, when leveling and layout began on the Chula Vista development.

By 1888, there were over 100 houses being built in Chula Vista, and population in this area boomed (Menzel 1942; Gross 1975). About that time, the National City and Otay Railroad built a line through Chula Vista, which probably crossed the Project area. The salt evaporation ponds in San Diego Bay immediately south of the Project area are not discussed in Menzel's history of the region, but this area has been used for salt collection probably fairly continuously since prehistoric times. Most Kumeyaay had left the vicinity by the 1920s.

The first SBPP unit was built in 1960, with additional generation units being built through the early 1970s. Most of the plant area lies on San Diego Bay fill over artificial fill and former tidal marsh.

#### 8.3.3.5 Resources Inventory

The SBRP site and linear facilities, and the existing SBPP site were subject to 100 percent (or complete) archeological resources inventory by CH2M HILL. This inventory is based on both archive/background research and surface pedestrian reconnaissance survey. The results of the resource inventory are presented in the subsections below. A historic architectural resources survey was also conducted to examine resources 45 years old or older at the SBRP Project site and the existing SBPP site.

##### 8.3.3.5.1 Archival Research

CH2M HILL commissioned a detailed record search by staff of the California Historical Resources Information System (CHRIS) South Coastal Information Center for the SBRP Project using a definition of a 1-mile buffer zone around the Project site and at least 0.25-mile buffer around linear facilities as the "Project area."

According to information available in the CHRIS files, there have been fifteen previous cultural resource surveys conducted within the "Project area." Within one-mile of the "Project area" are six recorded cultural resources. Two of these, CA-SDI-13.073H and the Western Salt Company Salt Works, are historic properties determined eligible for nomination to the National Register of Historic Places (NRHP). None of these sites will be impacted by the construction or operation of the SBRP Project, or by the demolition of the existing SBPP.

In light of known ethnography, prehistory, and archaeology, the entire coastal area is archaeologically highly sensitive. The area is rich in food resources (shellfish, acorns, etc.) which have been used by occupants of the area for thousands of years. Fresh water is relatively abundant. As Roth (1989) states, "A high density of cultural resources would be expected to occur around the coastal inlets, particularly along the San Diego Bay and lagoon

areas. These sites would represent both seasonally and/or permanent occupation and specialized use areas of both [the early period] and the Prehistoric cultural components".

The area along the channel of Telegraph Canyon Creek, a source of fresh water on the ecologically rich bay, has been considered particularly archaeologically sensitive. Although surface reconnaissance along the creek in 1975 had negative results, investigators felt that shifts in the course of the channel over time might have buried cultural deposits along the channel. This possibility was investigated in 1978 when four test trenches were mechanically excavated along the creek within the SBPP site. The results of this investigation were negative. Investigators concluded that "The strata suggest that the surface soils in the region were constructed of introduced fills overlaying tidal marsh lands" (Eckhardt and Carrico 1978). Research conducted by JRP Historical Consulting showed that a large volume of fill was brought in to the SBRP Project site for construction of the SBPP, which began in 1958.

Fifteen individual cultural resource investigation reports were provided by CHRIS for the Project area. Arranged in ascending order as cataloged by CHRIS, the reports listed in Table 8.3-2 were reviewed for information pertinent to the SBRP Project. Table 8.3-3 describes each site and more detailed site descriptions follow below.

**TABLE 8.3-2**
Authors (Dates) and CHRIS/SCIC Catalog Number for Cultural Resource Investigation Reports

| | |
|---|---|
| ASI (1991) – SCIC – 1122252 | Carrico and Eckhardt (1978) – SCIC – 1120304 |
| Corum (1978) – SCIC – 1120497 | Burke (2003) – SCIC – 1128838 |
| Gross (1975) – SCIC – 1120983 | Pigniolo and Murray (2001) – SCIC – 1128248 |
| Eckhardt (1978) – SCIC – 1124297 | Pigniolo (2000) – SCIC – 1125059 |
| Fulmer and Cook (1977) – SCIC – 1121004 | Hector (2005) – SCIC – 1129755 |
| Carrillo and Bull (1979) – SCIC – 1120698 | Wade (1990) – SCIC – 1125507 |
| Dolan (1999) – SCIC – 1125134 | Smith and Rosenberg (2005) – SCIC – 1129719 |
| Bevil (2001) – SCIC – 1128964 | |

**TABLE 8.3-3**
Summary of Sites within 1 mile of the Project Area of Potential Effects

| Site | Description | NRHP/CRHR Status | Effect |
|---|---|---|---|
| SDI-4886 | Isolate. Lithic scraper recorded in 1977. | Not Eligible | None; outside APE |
| SDI-13.073H | Historic Coronado Railroad segment. | Appears eligible | None; outside APE |
| SDI-4887 | Isolate. Lithic scraper recorded in 1977. | Not Eligible | None; outside APE |
| SDI-7941 | Sparse lithic scatter recorded in 1979. | Not Eligible | None; outside APE |
| SDI-5513 | Sparse lithic scatter recorded in 1978. | Not Eligible | None; outside APE |
| Western Salt Company Salt Works | Historic salt works. | Eligible | None; outside APE |

APE = Area of Potential Effects

#### *Site CA-SDI-4886*
This site consists of a single isolated artifact. Originally recorded in 1977, it was described as a lithic scraper, possibly made of chert. The location is well outside of the SBRP APE and will not be impacted. The site is considered ineligible for nomination to the NRHP or CRHR.

#### *Site CA-SDI-13.073H*
This site is a segment of the historic Coronado Railroad, constructed in the late 1880s. The line is not in use and is in poor condition. Portions of the berm remain and most of the track is not present. The site lies outside of the APE and no portion of the rail line right-of-way would be impacted by construction of the SBRP or the demolition of the existing SBPP. The rail line and its right-of-way were not evaluated, but it could be eligible for nomination to the NRHP or CRHR.

#### *Site CA-SDI-4887*
This site consists of a single isolated artifact. Originally recorded in 1977, it was described as a lithic scraper, possibly made of quartzite. The location is well outside of the SBRP APE and will not be impacted. The site is considered ineligible for nomination to the NRHP or CRHR.

#### *Site CA-SDI-7941*
This site was recorded in 1979 as a heavily disturbed sparse lithic scatter consisting of several small flakes. The location is well outside of the SBRP APE and will not be impacted. The site is considered ineligible for nomination to the NRHP or CRHR.

#### *Site CA-SDI-5513*
This site was recorded in 1978 as a sparse lithic scatter consisting of about ten flakes. The site was recorded as being heavily disturbed by farming activities. The location is well outside of the SBRP APE and will not be impacted. The site is considered ineligible for nomination to the NRHP or CRHR.

#### *Western Salt Company Salt Works (no Trinomial)*
This site is a solar salt production facility located to the south of the SBRP Project site. The site has been used for salt production since the 1860s. The facility is bounded on the north by San Diego Bay, Silver Strand Boulevard to the west, and various routes to the south and east. The Salt Works has been in operation for over 100 years. Consisting of 18 condensation ponds and 14 crystallization ponds, it is the only salt works still operating in San Diego County. Structures associated with the facility, some dating from 1916, include a processing plant, generator building, electrical shed, and storage buildings. The site is significant for the NRHP under criteria A and C. The location is well outside of the SBRP APE and will not be impacted by the Project.

#### *Local Historical Societies*
Four local Historical Societies were contacted on May 19, 2006. No additional historical resources were identified. A summary of these contacts is provided as part of Appendix 8.3A.

### 8.3.3.5.2 Field Survey
#### *Site Conditions*
A cultural resources survey of the Project area, comprising the proposed SBRP site, the existing SBPP site, and appurtenant linear facilities, was conducted on February 14, 2006. The

proposed SBRP is located on 12.9 acres within the 33-acre former LNG tank site located on the Port property within the City of Chula Vista, California. The site is immediately south of the existing SBPP site. As part of the Project, LSP South Bay, LLC (LSP) will enter into a lease agreement with the Port for the 12.9-acre Project site. The 6.5 acres for the relocation of the SDG&E substation is also located on the 33-acre LNG site. The 33-acre LNG site has been disturbed by construction and operation of former LNG tanks. The LNG tanks were removed from the site by SDG&E in 1989. The existing SBPP site has been heavily disturbed by the construction and operation of the existing SBPP. The SBRP site is surrounded by the existing SBPP to the north, Bay Boulevard and Interstate 5 (I-5) along with commercial development to the east, commercial development to the south, and the San Diego Bay and existing salt evaporation ponds on the west. The linear natural gas supply, sewer, and water pipelines that will support the SBRP Project are contained entirely within the existing right-of-way along Bay Boulevard or in an existing 300-foot SDG&E easement that parallels Bay Boulevard. The existing rights-of-way and SDG&E easement are disturbed areas. Vegetation comprised mainly weeds and low grasses. Approximately 80 percent of the ground surface was visible during the survey.

A qualified archaeologist (Clint Helton, RPA) conducted an archaeological survey of the entire APE of the 33-acre former LNG site on which the SBRP will be located on 12.9 acres and the 6.5 acre relocated SDG&E substation will also be located, and the existing SBPP site (115 acres) on February 14, 2006. Much of the ground surface was visible. No historic or prehistoric resources were observed during the survey. The pedestrian survey by the archaeologist revealed no known archaeological resources.

Given the amount of previous ground disturbance in the area for the existing SBPP access roads, utilities, liquid fuel storage tanks, and other infrastructure, in addition to the large amounts of fill material used prior to and during construction of the SBPP, it seems very likely that any potential cultural resources in the area would have been disturbed or destroyed. The archaeological sensitivity of the SBRP site and the existing SBPP site, and SBRP linear facility routes are considered low.

An architectural reconnaissance level survey for historic standing structures was conducted by JRP Historical Consulting (JRP) on February 14, 2006. The survey was performed by qualified architectural historian Rand Herbert, assisted by Andrew Walters. In anticipation of the planned demolition of the existing SBPP as part of the Project, JRP conducted a study of the existing SBPP property that included documentation of its physical setting, recordation of its history, and evaluation of its historic significance for the National Register of Historic Places and for the purposes of the CEQA.

#### 8.3.3.5.3 Archaeological Survey

***Plant Site and Linear Facilities***

The SBRP site is located on 12.9 acres of the 33-acre former LNG site. The area set aside for the relocation of the SDG&E substation, which is included as part of the Project, is located on 6.5 acres of the 33-acre former LNG site. In total, the SBRP and relocated SDG&E substation will utilize 19.4 acres of the 33-acre former LNG site. Demolition of the existing SBPP is considered part of the Project, so the 115-acre parcel containing the existing SBPP was included in the survey.

For completeness, a pedestrian archaeological survey was conducted over all parts of the Project site that were accessible (not covered by structures) using 30-meter parallel transects. Both the 33-acre site and the 115-acre SBPP site have been impacted by construction and demolition of several large liquid fuel storage tanks. Ground visibility averaged approximately 80 percent.

During this survey, no prehistoric or historic cultural remains were observed.

#### 8.3.3.5.4 Architectural Survey

An architectural survey for historic standing structures was conducted by JRP Historical Consulting on February 14, 2006. The survey was performed by qualified architectural historian Rand Herbert, assisted by Andrew Walters. JRP conducted a study of the South Bay Power Plant property that included documentation of its physical setting, recordation of its history, and evaluation of its historic significance for the NRHP and for the purposes of the CEQA.

##### *South Bay Power Plant*

As part of the architectural survey, JRP evaluated the historic significance of the existing SBPP and recorded the property on a DPR523 form using considerations outlined in 36 CFR Part 800.4 (c)-(d). A full technical memorandum documenting the result of the study and the completed DPR523 form is contained in the attached Appendix 8.3C.

The first unit of the SBPP was completed in 1960, and additional units were added incrementally thereafter in 1962, 1964, and 1971 respectively. Therefore, the SBPP and its support facilities are less than 50 years old, and only one of the plant's units is 45 years old. In order to be eligible for inclusion in the NRHP, the SBPP would need to qualify under the exacting standards for evaluation as an exceptionally significant property (Criteria Consideration G). The evaluation found that the existing SBPP does not represent an exceptionally significant property, whether considered within the context of the history of SDG&E, the history of steam electrical generation, or the more limited context of steam plants built during the post-war era. Its dominant characteristic is its typicality rather than its exceptionality. Therefore, the existing SBPP does not appear to meet the criteria for listing in the NRHP, and is also not a historic resource for the purposes of CEQA.

#### 8.3.3.5.5 Native American Consultation

CH2M HILL contacted the NAHC by letter on December 19, 2005, to request information about traditional cultural properties such as cemeteries and sacred places in the Project area. The NAHC responded on December 28, 2005, with a list of Native Americans interested in consulting on development projects. Each of these individuals/groups was contacted by letter on January 26, 2006. As of May 8, 2006, six responses have been received. No significant concerns have been expressed in those responses received. Copies of these letters and any responses are provided in Appendix 8.3A. Also, a detailed summary table of the results of consultations with the individual Native American organizations on the NAHC contact list is included in Appendix 8.3A.

The NAHC record search of the Sacred Lands file failed to indicate the presence of Native American cultural resources in the immediate Project area. The record search conducted at the South Coastal California Information Center of CHRIS for CH2M HILL also failed to indicate the presence of Native American traditional cultural properties.

## 8.3.4 Environmental Analysis

This subsection describes the environmental impacts of SBRP construction and operations, construction of the SDG&E substation and the demolition of the existing SBPP. CH2M HILL conducted a complete survey of the Project area.

CH2M HILL conducted archival research; reviewed all cultural resource investigation reports within the SBRP Project area; contacted other interested agencies, Native American groups, and historic societies; and conducted a complete field investigation. As a result of all these efforts, CH2M HILL did not detect within the Project area any significant prehistoric or historic archaeological remains, or any historically or architecturally significant buildings. No impacts on architectural resources are expected to occur.

The gas line, sewer line, water line, and transmission line will be constructed entirely within previously disturbed areas, and entirely within the existing disturbed areas. Further, both the CHRIS literature search and CH2M HILL's survey failed to identify significant archaeological sites or significant architectural resources. Therefore, no impacts to cultural resources are expected to occur.

## 8.3.5 Cumulative Effects

Because the SBRP, SDG&E substation, and the demolition of the existing SBPP will not affect known significant cultural resources, the Project will not likely cause significant cumulative impacts. If construction of the SBRP or its linear components, or the demolition of the existing SBPP were to encounter a large, stratified, buried prehistoric archaeological site or discrete filled-in historic period features, the possibility of cumulative impacts would arise because such sites might be highly significant, and many have been destroyed or damaged by agricultural activity and/or commercial/industrial/residential development in the Project vicinity. Given the relative low level of impact to such a site that the Project will cause, it is also unlikely that the proposed Project activities will lead to significant cumulative impacts, depending on the extent of Project impact to any such discovered archaeological deposits. Any potential impact to an unknown site would be minimized by a stop-work procedure if a site were uncovered. No impacts on architectural resources are expected to occur.

## 8.3.6 Mitigation Measures

Although significant archaeological and historical sites were not found during the project field survey, it is possible that subsurface construction could encounter buried archaeological remains. For this reason, the Applicant proposes to implement measures to mitigate any potential adverse impacts that could occur if there were an inadvertent discovery of buried cultural resources. These measures include: (1) designation of a cultural resources specialist (CRS) to be on-call to investigate any cultural resources finds made during construction; (2) implementation of a construction worker training program; (3) monitoring during initial clearing of the power plant site and excavation at the plant site; (4) procedures for halting construction in the event that there is an inadvertent discovery of archaeological deposits or human remains; (5) procedures for evaluating an inadvertent archaeological discovery; and (6) procedures to mitigate adverse impacts on any inadvertent archaeological discovery determined significant.

### 8.3.6.1 Designated Cultural Resources Specialist

The Applicant will retain a designated CRS who will be available during the earth disturbing portion of the SBRP construction period and during the earth disturbing portion of the demolition of the existing SBPP to inspect and evaluate any finds of buried archaeological resources that might occur during the construction or demolition phases. If there is a discovery of archaeological remains during construction or demolition, the CRS, in conjunction with the construction superintendent and environmental compliance manager, will make certain that construction or demolition activity stops in the immediate vicinity of the find until the find can be evaluated. The CRS will inspect the find and evaluate its potential significance, in consultation with CEC staff and the CEC compliance project manager (CPM). The CRS will make a recommendation as to the significance of the find and any measures that would mitigate adverse impacts of construction or demolition on a significant find.

The CRS will meet the minimum qualifications for Principal Investigator on federal projects under the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation. The CRS will be qualified, in addition to site detection, to evaluate the significance of the deposits, consult with regulatory agencies, and plan site evaluation and mitigation activities.

### 8.3.6.2 Construction and Demolition Worker Sensitivity Training

The Applicant will prepare a construction/demolition worker sensitivity training program to ensure implementation of procedures to follow in the event that cultural resources are discovered during construction or demolition. This training will be provided to each construction/demolition worker as part of their environmental, health, and safety training. The training will include photographs of various types of historic and prehistoric artifacts and will describe the specific steps that will be taken in the event of an unanticipated discovery of cultural material, including human remains. It will explain the importance of, and legal basis for, the protection of significant archaeological resources. The training will also be presented in the form of a written brochure.

### 8.3.6.3 Monitoring

The Applicant will retain a qualified archaeologist to monitor excavations during the Project's construction and demolition phases. If archaeological material is observed by the monitoring archaeologist, ground-disturbing activity will be halted in the vicinity of the find so that its significance (CRHR eligibility) can be determined. If evaluated as significant, mitigation measures (avoidance or data recovery) will be developed in consultation with the CEC.

### 8.3.6.4 Emergency Discovery

If the archaeological monitor, construction/demolition staff, or others identify archaeological resources during construction or demolition, they will immediately notify the CRS and the site superintendent, who will halt construction or demolition in the immediate vicinity of the find, if necessary. The archaeological monitor or CRS will use flagging tape, rope, or some other means as necessary to delineate the area of the find within which construction or demolition will halt. This area will include the excavation trench from which the archaeological finds came as well as any piles of dirt or rock spoil from that area.

Construction or demolition will not take place within the delineated find area until the CRS, in consultation with the CEC staff and CEC CPM, can inspect and evaluate the find.

#### 8.3.6.5 Site Recording and Evaluation

The CRS will follow accepted professional standards in recording any find and will submit the standard Department of Parks and Recreation historic site form (Form DPR 523) and locational information to the South Coastal Information Center of the California Historic Resources Information System.

If the CRS determines that the find is not significant, and the CEC CPM concurs, construction or demolition will proceed without further delay. If the CRS determines that further information is needed to determine whether the find is significant, the designated CRS will prepare a plan and a timetable for evaluating the find, in consultation with the CEC.

#### 8.3.6.6 Mitigation Planning

If the CRS, CEC staff, and CPM determine that the find is significant, the CRS will prepare and carry out a mitigation plan in accordance with state guidelines. This plan will emphasize the avoidance, if possible, of significant archaeological resources. If avoidance is not possible, recovery of a sample of the deposit from which archaeologists can define scientific data to address archaeological research questions will be considered an effective mitigation measure for damage to or destruction of the deposit.

The mitigation program, if necessary, will be carried out as soon as possible to avoid construction or demolition delays. Construction or demolition will resume at the site as soon as the field data collection phase of any data recovery efforts is completed. The CRS will verify the completion of field data collection by letter to the Project owner and the CPM so that the Project owner and the CPM can authorize resuming construction or demolition.

#### 8.3.6.7 Curation

The CRS will arrange for curation of archaeological materials collected during an archaeological data recovery mitigation program. Curation will be at a qualified curation facility meeting the standards of the California Office of Historic Preservation. The CRS will submit field notes, stratigraphic drawings, and other materials developed as part of the data recovery/mitigation program to the curation facility along with the archaeological collection, in accordance with the mitigation plan.

#### 8.3.6.8 Report of Findings

If a data recovery program is planned and implemented during construction or demolition, the CRS will prepare a detailed scientific report summarizing results of the excavations to recover data from an archaeological site as a mitigation measure. This report will describe the site soils and stratigraphy, describe and analyze artifacts and other materials recovered, and draw scientific conclusions regarding the results of the excavations. This report will be submitted to the curation facility with the collection.

#### 8.3.6.9 Inadvertent Discovery of Human Burials

If human remains are found during construction or demolition, Project officials are required by the California Health and Safety Code (Section 7050.5) to contact the County Coroner. If

the Coroner determines that the find is Native American, he/she must contact the NAHC. The NAHC, as required by the Public Resources Code (Section 5097.98) determines and notifies the Most Likely Descendant with a request to inspect the burial and make recommendations for treatment or disposal.

## 8.3.7 Involved Agencies and Agency Contacts

Table 8.3-4 lists the state agencies involved in cultural resources management for the Project and a contact person at each agency. These agencies include the NAHC and, for federal lands, the Office of Historic Preservation.

**TABLE 8.3-4**
Agency Contacts

| Issue | Contact | Title | Telephone |
|---|---|---|---|
| Native American traditional cultural properties | Rob Wood<br>NAHC | Associate governmental program analyst | (916) 653-4082 |
| Federal agency NHPA Section 106 compliance | Milford Wayne Donaldson<br>Office of Historic Preservation | State historic preservation officer | (916) 653-6624 |

## 8.3.8 Permits Required and Schedule

Other than certification by the CEC, no state, federal, or local permits are required by the Project for the management of cultural resources. Consultation with the State Historic Preservation Officer (SHPO) and Advisory Council on Historic Preservation (ACHP) would be required under Section 106 of the National Historic Preservation Act if, for example, as the result of a later project change, the Project were to become a federal undertaking and significant cultural resources were likely to be affected by the Project.

## 8.3.9 References

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**FIGURE 8.3-1**
**KUMEYAAY CULTURAL AREA**
SOUTH BAY REPLACEMENT PROJECT
CHULA VISTA, CALIFORNIA

CH2MHILL

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